4. Hisoka

Program Name: Hisoka.java **Input File: hisoka.dat**

Hisoka overheard his parents talking about how they had built a retirement fund by making a regular monthly payment into a retirement annuity. He wants to be able to play with various numbers to see how large the retirement fund can get. Using the formula shown below, it starts with a steady monthly payment into the retirement account. That money earns interest based on a monthly rate that is simply 1/12 of a stated annual percentage rate or APR. A higher APR means more profit from the amount that has been deposited along with monthly interest that has also been added back into the account. The number of periods is just the number of months that payments have been deposited.

Formula:

$$v = p \times \frac{(1+r)^n - 1}{r}$$

Legend:
p = amount of payment
r = monthly interest rate
n = number of months
v = annuity value

Can you help Hisoka create a program to calculate values of savings annuities based on various financial factors?

Input: First line will contain a positive integer **T**, the number of test cases with $1 \leq \mathbf{T} \leq 25$. The following **T** lines will contain three items separated by spaces: amount of a monthly payment, annual percentage rate (APR), and number of years. The monthly payment will be standard dollars and cents in the range \$25.00 … \$1500.00. The APR is a percentage in the range 2.0% … 15.0% and must be converted into decimal form. The number of years will be a whole number in the range 10 … 50.

Output: For each test case, display three items on a single line: sum of all monthly payments into the account, total interest earned, and total value with all items rounded to 2 decimal places and separated by single spaces.

Sample input:

```
3
25.00 12.0 30
50.00 5.75 25
1234.56 7.99 20
```

Sample output:

```
9000.00 78374.10 87374.10
15000.00 18346.73 33346.73
296294.40 429983.64 726278.04
```